Chollas Creek Metals Total Maximum Daily Load (TMDL) Implementation Plan

2nd Draft — May 11, 2009

San Diego Unified Port District

City of San Diego

County of San Diego

City of La Mesa

CalTrans

U.S. Navy

City of Lemon Grove

CHOLLAS CREEK METALS TMDL IMPLEMENTATION PLAN

2nd Draft Report

Prepared for:

CalTrans
City of San Diego
City of La Mesa
City of Lemon Grove
County of San Diego
United States Navy
San Diego Unified Port District

Prepared by:

Weston Solutions, Inc.
2433 Impala Drive
Carlsbad, CA 92010

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BLTEA	Baseline Long Term Effectiveness Assessment
BMP	Best Management Practice
Caltrans	California Department of Transportation
CBSM	Community Based Social Marketing
CCC	Criteria Continuous Concentration
Chollas Creek TMDL Report	*Chollas Creek TMDL Source Loading Assessment, BMP Evaluation, and Recommended Monitoring Strategy Report*
CMC	Criteria Maximum Concentration
CTR	California Toxics Rule
(Chollas Creek) Dissolved Metals TMDL	*Total Maximum Daily Loads for Dissolved Copper, Lead and Zinc in Chollas Creek, Tributary to San Diego Bay*
Implementation Plan	Chollas Creek Dissolved Metals TMDL Implementation Plan
LID	Low Impact Development
MOU	Memorandum of Understanding
MS4	Municipal Separate Storm Sewer System
Navy	United States Navy
NPDES	National Pollutant Discharge Elimination System
OAL	Office of Administrative Law
Port	San Diego Unified Port District
REC-1	Contact Water Recreation
REC-2	Non-Contact Water Recreation
Regional Board	San Diego Regional Water Quality Control Board
San Diego Copermittee Monitoring Program	Annual wet and dry weather monitoring related to the San Diego County Municipal Copermittees Urban Runoff Monitoring Program
San Diego Copermittee Monitoring Report	Annual wet and dry weather reporting related to the San Diego County Municipal Copermittees Urban Runoff Monitoring Program
SCCWRP	Southern California Coastal Waters Research Project
SUSMP	Standard Urban Stormwater Mitigation Plan
TMDLs	Total Maximum Daily Loads
TSS	Total Suspended Solids
USACE	United States Army Corps of Engineers
WARM	Warm Freshwater Habitat
Watershed Activity List	List of Watershed Activities for Phase I Implementation These lists were developed by each Discharger and are presented in Appendix B of this Implementation Plan

Weston	Weston Solutions, Inc.
WLA	Wasteload Allocation
WILD	Wildlife Habitat

GLOSSARY

Baseline Long Term Effectiveness Assessment (BLTEA): This is the 2004-2005 municipal urban runoff monitoring report (Weston, MOE, LWA, 2005) developed for the San Diego County Copermittees in accordance with San Diego Regional Water Quality Control Board Order No. 2001-01. The monitoring program recommended for 2007-2010 was designed to advance the understanding of conditions in San Diego County watersheds (including the Chollas Creek Watershed). Key data used in this Implementation Plan include the BLTEA "Water Quality Priority Ratings" and the "Inventory of Potential Sources for the Chollas Creek Watershed."

Best Management Practice (BMP): The primary method to control stormwater discharges is through the use of best management practices (also referred in the Implementation Plan to as watershed activities).

California Toxics Rule (CTR): Water quality criteria for priority toxic pollutants for California inland surface waters, enclosed bays, and estuaries. The California Toxics Rule is the basis of the numeric targets in the Dissolved Metals TMDL. Specifically, the numeric targets for the Chollas Creek Dissolved Metals TMDL were set equal to the California Toxics Rule's water quality objectives, which are comprised of hardness-based equations for dissolved copper, lead, and zinc.

Chollas Creek Dissolved Metals TMDL Discharger Workgroup: Representatives from the seven Dischargers subject to the Dissolved Metals TMDL work cooperatively to plan and coordinate watershed activities outlined in this planning document.

Chollas Creek Dissolved Metals TMDL Implementation Plan (Implementation Plan): The planning document outlining the long term planning, implementation, and assessment strategy used by Dischargers to meet the wasteload allocations defined in the Dissolved Metals TMDL.

Chollas Creek TMDL Source Loading Assessment, BMP Evaluation, and Recommended Monitoring Strategy Report (Chollas Creek TMDL Report): Water quality assessment and planning document published in 2006 for the City of San Diego (Weston, 2006). This document provides an assessment of potential sources relative to the constituents that have been listed in adopted and anticipated future TMDLs for the Chollas Creek Watershed (based on the BLTEA Inventory of Potential Sources data). This document introduced the tiered and phased approach used in this Implementation Plan. This document is available online at: <http://www.sandiego.gov/thinkblue/pdf/chollasfinal0609.pdf>

Community Based Social Marketing (CBSM): A strategic process that identifies the barriers to behavior change, structures a program around those barriers, and then implements and assesses the effectiveness of the program on a small scale (target audience).

Criteria Continuous Concentration (CCC): Water quality criterion in the metals TMDL equal to the highest concentration of a pollutant to which aquatic life can be exposed for an extended period of time without deleterious effects.

Criteria Maximum Concentration (CMC): Water quality criterion in the metals TMDL equal to the highest concentration of a pollutant to which aquatic life can be exposed for a short period of time without deleterious effects.

Dischargers: Dischargers are the participants implementing watershed activities under this Implementation Plan. Dischargers include Caltrans, the City of La Mesa, City of Lemon Grove, City of San Diego, County of San Diego, Port of San Diego, and the United States Navy.

Integrated TMDL Watershed Approach: A holistic, multi-pollutant approach to watershed activity planning and implementation which consists of an iterative four component process of 1) Initial Assessment, 2) Planning, 3) Implementation, and 4) Effectiveness Assessment/Re-evaluation. Each component of this approach includes planning tools which helped Dischargers develop and select TMDL watershed activities, a framework for implementation, and an assessment process. The Implementation Plan currently focuses on the first five years (Phase I) of the TMDL Compliance Schedule, but using this approach, Dischargers are enabled to identify and plan watershed activities beyond this five year scope.

List of Watershed Activities for Phase I Implementation (Watershed Activity List): Each Discharger developed a list of prioritized watershed activities which they plan to implement over the first five years of the 20-year TMDL Compliance Schedule. Dischargers may modify the watershed activities implemented based on the outcomes of Phase I implementation (in accordance with the Integrated TMDL Watershed Approach) and/or based on available resources.

Low Impact Development (LID): Low impact development is an approach to land development (or re-development) that works with nature to manage stormwater as close to its source as possible. LID design includes minimizing effective imperviousness, preserving and recreating natural landscape features, and treating stormwater so it can be used as a resource. The Green Lot, Green Street, and Green Mall watershed activities are integrated low impact development designs introduced in this Implementation Plan (see description in Tool C of Appendix D).

Mass Loading Stations (MLS): Water quality monitoring station. In the Chollas Creek Watershed the two MLS are SD8(1) and DPR2.

Memorandum of Understanding (MOU): Cost sharing agreement developed by the seven Dischargers to address the Dissolved Metals TMDL monitoring requirements.

National Pollutant Discharge Elimination System (NPDES): Special provision based on the Clean Water Act regulating the discharge of pollutants from a point source to waters of the United States without impacting water quality or human health.

National Pollutant Discharge Elimination System (NPDES) Permit: A permit program which requires all point sources discharging pollutants into waters of the United States to obtain a permit.

State Board Office of Administrative Law (OAL): State of California agency responsible for reviewing the TMDLs for clarity, necessity, and legal validity. The dissolved metals TMDL took effect on October 22, 2008 after it was reviewed and approved by the OAL.

Phase I: In this Implementation Plan, the 20-year TMDL Compliance Schedule has been subdivided into phases. Phase I of the Implementation Plan consists of the first five years of the TMDL Compliance Schedule (Years 1-5, or October 2008 to October 2013). Dischargers used the methodology outlined in the Implementation Plan to develop Watershed Activities Lists (see Appendix B).

Priority Water Quality Problems: Priority water quality problems in the Chollas Creek Watershed include: dissolved metals (copper, lead, zinc), bacteria, Diazinon, and trash. Other water quality problems include pesticides and synthetic pyrethroids, sediment, turbidity, and toxicity (at the mouth of the creek). These priority water quality problems identified in Table A-2 (Tool A of Appendix D) are based on the "Water Quality Priority Ratings" from the BLTEA report and the "Frequency of Occurrence" ratings from the Annual San Diego Copermittee Monitoring Report.

Strategic Plan for Watershed Activity Implementation: Strategic planning document published in 2007 for the City of San Diego (Weston, 2007). This document represents the Storm Water Pollution Prevention Division strategy for identifying and implementing watershed activities within the City's jurisdictional boundaries between 2008 and 2011. The Strategic Plan's tiered and phased approached was the basis of the Integrated TMDL Watershed Approach used in this Implementation Plan. This document is available online at: <http://www.sandiego.gov/thinkblue/programreports/index.shtml>

Tier I non-structural BMPs: Tier I BMPs focus on non-structural source control and pollution prevention measures that are designed to reduce the amount and understand the effect of pollutants entering runoff though education, enforcement, and behavioral modification programs. These behavior changing activities are typically targeted at specific pollutant sources and/or land uses. Tier I activities also include source and design studies that will aid in the further identification of pollutant sources and provide design parameters for construction of effective in-line treatment systems (Tier III activities).

Tier II structural BMPs: Tier II includes structural BMPs such as infiltration basins, bioretention, and low impact development low impact development techniques to reduce wet and dry weather runoff volumes and further reduce pollutant entry into the Chollas Creek Watershed.

Tier III restoration and treatment BMPs: Tier III BMPs are infrastructure-intensive structural pollution reduction treatment measures that typically require significant capital investment and/or have impacts on surrounding communities. These activities can also include integrated restoration projects that restore stream habitat and improve water quality or include natural treatment systems. Generally Tier III activities are implemented once Tier I and Tier II BMPs have reached a point of diminishing returns.

Total Maximum Daily Load (TMDL): The maximum amount of a pollutant that a waterbody can receive and still safely meet water quality standards. The metals TMDL has allocated quantitative limits for point and nonpoint pollution sources of dissolved copper, lead, and zinc in the Chollas Creek Watershed. The TMDL requires Dischargers to develop this Implementation Plan.

Water Quality Control Plan for the San Diego Region (Basin Plan): The Basin Plan is a living document and will be subject to modification based on changing needs and circumstances with respect to applicable laws, policies, technologies, water quality conditions, and priorities in the San Diego Region. The last major update of the entire Basin Plan was published in 1994. The regulatory provisions of the Dissolved Metals TMDL were incorporated into the Basin Plan on October 22, 2008. The Basin Plan is available online at: <http://www.swrcb.ca.gov/sandiego/water_issues/programs/basin_plan/>.

Water Quality Control Plan for Ocean Waters of California (Ocean Plan): The California Ocean Plan establishes water quality objectives for California's ocean waters and provides the basis for regulation of wastes discharged into the State's coastal waters. The plan applies to point and nonpoint source discharges. The current 2001 California Ocean Plan is available at: <http://www.waterboards.ca.gov/water_issues/programs/ocean/>.

Watershed Activities: BMPs that prevent, control, or treat constituents in urban runoff in order to lessen overall environmental impacts.

Wasteload Allocation (WLA): The WLAs for the Dissolved Metals TMDL are expressed as concentrations equal to 90 percent of the loading capacities for dissolved copper, lead, and zinc. All point source discharges to the Chollas Creek Watershed will be required to achieve this WLA.